

Application No.: 09/777,867
Examiner: T. LUU
Art Unit: 2878

IN THE CLAIMS

Please cancel claims 1-9 without prejudice or disclaimer.

Please add new claims 10-18 as shown on the APPENDIX OF NEW CLAIMS.

IN THE ABSTRACT

Please cancel the originally-filed Abstract in its entirety and substitute therefor the new ABSTRACT presented on a separate page appended hereto. A marked-up copy of the original Abstract is attached.

APPENDIX OF NEW CLAIMS

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10. An apparatus for determining the fitness of a bank note by sensing the bank note transported along a transport path by a transport device, comprising:
a plurality of identical sensor and illumination units positioned along each side of the transport path, the sensor and illumination units being focused at a single predetermined section of the transport path.

11. The apparatus according to claim 10, wherein two of said illumination units are positioned on opposite sides of the transport path relative to one another and have different wavelengths or wave ranges, said two illumination units being alternately operated relative to one another.

12. The apparatus according to claim 10, wherein the sensors are positioned in a linear arrangement of a plurality of individual sensor or sensor arrays positioned perpendicular to the transport path.

13. The apparatus according to claim 12, further comprising a linear arrangement of gradient lenses disposed between the sensors and the transport path to thereby produce a one-to-one image of the bank notes determined by the sensors.

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14. A method for determining the fitness of a bank note by sensing the bank note transported along a transport path by a transport device, comprising the steps of: simultaneously illuminating each side of the bank note at a single predetermined section of the transport path with light of the same wavelength or wave ranges of an identical intensity; and evaluating light diffusely reflected from the bank note at said predetermined section of the transport path to determine the fitness thereof.

15. The method according to claim 14, wherein the wavelengths or wave ranges of light illuminated at said predetermined section of the transport path are alternately changed.

16. The method according to claim 15, wherein areas of the bank notes are evaluated at different resolutions for determining the fitness thereof.

17. The method according to claim 16, wherein predetermined areas of a bank note of a selected currency or denomination are evaluated at different resolutions.

18. The method according to claim 14, wherein one-dimensional evaluation along a transport direction of the bank note is performed for determining the fitness of each bank note.